

METHOD TO FORM ULTRA HIGH QUALITY SILICON-CONTAINING COMPOUND LAYERSS

Abstract of the Disclosure

Multiple sequential processes are conducted in a reaction chamber to form ultra high quality silicon-containing compound layers, including silicon nitride layers. In a preferred embodiment, a silicon layer is deposited on a substrate using trisilane as the silicon precursor. A silicon nitride layer is then formed by nitriding the silicon layer. By repeating these steps, a silicon nitride layer of a desired thickness is formed.

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